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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,545

09/12/2003

Arto Palin

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EXAMINER

AJAYI, JOEL

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/660,545	Applicant(s) PALIN ET AL.	
	Examiner JOEL AJAYI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,15-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-13,15-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 4, 6-13, 15, 17, 19, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies (U.S. Patent Application Number: 2001/0055356)** in view of **Rosen et al. (U.S. Patent Application Number: 2005/0031051)**.

Consider **claim 1**; Davies discloses a method of controlling a multicast transmission, comprising:

- a. transmitting a data packet to a plurality of devices (paragraph 22).
- b. detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of devices (paragraph 22).
- c. retransmitting the data packet to at least one of the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: transmitting a data packet across an ultra wideband (UWB) wireless network.

- d. counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices; and
- e. foregoing retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when step (b) detects an acknowledgement transmission from the each of the plurality devices except for said particular device.

In the same field of endeavor Rosen discloses: transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5);

- d. counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13); and

- e. foregoing retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when step (b) detects an acknowledgement transmission from the each of the plurality devices except for said particular device (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Consider **claim 13**; Davies discloses a wireless communication device comprising: transmitting to a plurality of devices; the retransmission packet being previously transmitted across the wireless network; a retransmission controller configured to receive one or more acknowledgement transmission from the plurality of devices; wherein the retransmission controller is further configured to cause the retransmission packet to the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: a retransmission buffer configured to store a retransmission packet; transmitting a data packet across an ultra wideband (UWB) wireless network

- d. counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices; and
- e. forego retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when an acknowledgement transmission from each of the plurality devices, except for said particular device, is detected.

In the same field of endeavor Rosen discloses a retransmission buffer configured to store a retransmission packet (paragraph 137, lines 1-4); transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5).

- d. counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13); and
- e. forego retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when an acknowledgement transmission from each of the plurality devices, except for said particular device, is detected devices (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Consider **claim 17**; Davies discloses a system of controlling a multicast transmission, comprising:

- a. means for transmitting a data packet to a plurality of devices (paragraph 22).
- b. means for detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of devices (paragraph 22).
- c. means for retransmitting the data packet to at least one of the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: transmitting a data packet across an ultra wideband (UWB) wireless network.

- d. means for counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices; and
- e. means for foregoing retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when step (b) detects an acknowledgement transmission from the each of the plurality devices except for said particular device.

In the same field of endeavor Rosen discloses: transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5);

- d. means for counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13); and
- e. means for foregoing retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when step (b) detects an acknowledgement transmission from the each of the plurality devices except for said particular device (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Consider **claim 21**; Davies discloses a computer-readable medium encoded with processing instructions for implementing a method of controlling a multicast transmission, performed by a wireless communications device, the method comprising:

- a. transmitting a data packet to a plurality of devices (paragraph 22).
- b. detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of devices (paragraph 22).
- c. retransmitting the data packet to at least one of the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: transmitting a data packet across an ultra wideband (UWB) wireless network.

- d. counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices; and
- e. foregoing retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when step (b) detects an acknowledgement transmission from the each of the plurality devices except for said particular device.

In the same field of endeavor Rosen discloses: transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5);

- d. counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13); and
- e. foregoing retransmission of the data packet until said number of consecutive times exceeds a predetermined threshold or when step (b) detects an acknowledgement transmission from the each of the plurality devices except for said particular device (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Consider **claim 3**; Rosen discloses receiving any acknowledgement transmissions from the UWB wireless network (paragraph 5; paragraph 131, lines 1-13).

Consider **claims 4, 15, 19, 22**; Davies discloses receiving any acknowledgement transmissions from a transmission media different from the UWB wireless network (paragraph 22).

Consider **claim 6**; Davies discloses correlating signals with a predetermined acknowledgement sequence during a time slot allocated to the devices for acknowledgement transmission (paragraph 22).

Consider **claim 7**; Rosen discloses generating a correlation signal from the predetermined acknowledgement sequence and received transmissions; and counting the number of times the correlation signal exceeds a predetermined threshold (paragraph 131, lines 1-13).

Consider **claim 8**; Davies discloses that a time division multiple access (TDMA) time slot allocated to upstream transmissions from the plurality of devices (paragraph 22).

Consider **claim 9**; Rosen discloses retransmitting the data packet when the number of times the correlation signal exceeds the predetermined threshold is less than the number of the plurality of devices (paragraph 131, lines 1-13).

Consider **claim 10**; Davies and Rosen discloses generating a correlation signal from the predetermined acknowledgement sequence and received transmissions; and determining whether the correlation signal exceeds a predetermined threshold during each of a plurality of time division multiple access (TDMA) time slots, wherein each of the TDMA time slots are allocated to respective one of the plurality of devices (Davies, paragraph 22; Rosen, paragraph 131, lines 1-13).

Consider **claim 11**; Davies discloses retransmitting the data packet when the correlation signal fails to exceed the predetermined threshold during each of the plurality of time division multiple access (TDMA) time slots (paragraph 22).

Consider **claim 12**; Davies and Rosen discloses counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices; and foregoing retransmission of the data packet when: the correlation signal fails to exceed the predetermined threshold during each of the plurality of time division multiple access (TDMA) time slots, and said number of consecutive times exceeds a second predetermined threshold (Davies, paragraph 22; Rosen, paragraph 131, lines 1-13).

Claims 5, 16, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies (U.S. Patent Application Number: 2001/0055356)** in view of **Rosen et al. (U.S. Patent Application Number: 2005/0031051)**, and further in view of **Gan et al. (U.S. Patent Application Number: 2002/0136268)**.

Consider **claims 5, 16, 20, 23**; Davies and Rosen fail to disclose that the different transmission media comprises Bluetooth.

In the same field of endeavor Gan discloses that the different transmission media comprises Bluetooth (paragraph 145, lines 5-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gan into the method of Davies and Rosen in order to enhance performance using Bluetooth.

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joel Ajayi whose telephone number is (571) 270-1091. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Joel Ajayi

*/Nick Corsaro/
Supervisory Patent Examiner, Art Unit 4181*